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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,967	02/17/2004	Joseph C. Kollaritsch	BEN02 P-356	9113
277	7590	09/22/2005	EXAMINER	
PRICE HENEVELD COOPER DEWITT & LITTON, LLP			BLANKENSHIP, GREGORY A	
695 KENMOOR, S.E.			ART UNIT	
P O BOX 2567			PAPER NUMBER	
GRAND RAPIDS, MI 49501			3612	

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/779,967

Applicant(s)

KOLLARITSCH ET AL.

Examiner

Greg Blankenship

Art Unit

3612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-82 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 30-39, 44, 45, 74-78 and 80 is/are rejected.
- 7) ☒ Claim(s) 2-29, 40-43, 46-73, 79, 81 and 82 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species A: Figures 1-12 and 15-18

Species B: Figures 13 and 14.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1 and 45 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Art Unit: 3612

2. Applicant's election with traverse of Species A in the reply filed on 5/16/2005 is acknowledged. The traversal is on the ground(s) that Figures of Species A were included with Figures of Species B. The species requirement has been amended to reflect that Figures 15-18 belong to Species A.

The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

3. Claims 1 and 45 are objected to because of the following informalities:

Claim 1, line 1, "and the like" should be removed;

Claim 45, lines 1-2, "and the like" should be removed;

Claim 45, line 6, "lager" should be --larger--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 30-35, and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirano et al. (4,272,114).

Hirano et al. discloses an energy absorption impact system for a bumper (18) including a mounting plate (9) and a box-shaped, sheet metal energy absorbing crush member (1). The mounting plate (9) has a central opening (19). The energy absorbing crush member (1) has a top wall, a bottom wall, and opposite sidewalls forming a generally frusto-pyramidal shape, as shown in the figures. The energy absorbing crush member (1) has a smaller end that is

Art Unit: 3612

connected to the mounting plate (9) and a larger end. The larger end is adapted for connection with a bumper as broadly claimed. Figure 4 shows the top wall, bottom wall, and opposite sidewalls deform inward towards the central opening of the mounting plate (9). In reference to claims 30-35, the top wall, bottom wall, and sidewalls form identical acute angles relative to the adjacent outer portion of the mounting plate (9). In reference to claim 38, the crush member (1) is made of substantially identical C-shaped channel members (24,25) that are rigidly connected along opposite seams as disclosed on lines 17-29 of column 6. The frame (13) has an open forward end, as seen in Figure 9.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano et al. (4,272,114).

Hirano et al. does not disclose adjusting the angle of the sidewalls to vary the absorption characteristics of the impact system.

Official notice is being taken that tuning the energy absorption characteristics by adjusting the physical dimensions (size, thickness, angles) of the energy absorber is well known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to:

Art Unit: 3612

in reference to claim 36, adjust the angle of the sidewalls of Hirano et al.; and

in reference to claim 37, adjust the thickness of the top wall, bottom wall, and
sidewalls of Hirano et al.;

to provide the desired energy absorption characteristics.

8. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano et al.
(4,272,114).

Hirano et al. does not disclose the seam being along the top and bottom walls.

It would have been obvious to one of ordinary skill in the art at the time the invention was
made to attach the crush member to the mounting plate such that the seams of the C-shaped
channels are located along the top and bottom walls as an obvious expedient that would
provide the desired energy absorption.

9. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano et al.
(4,272,114).

Hirano et al. does not disclose the claimed material.

The examiner is taking official notice that high strength steel is a well-known material in
the automotive industry.

It would have been obvious to one of ordinary skill in the art at the time the invention was
made to make the mounting plate and crush member of Hirano et al. using high strength
steel to provide the desired energy absorption properties.

10. Claims 45, 74, 75, 78, and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Hirano et al. (4,272,114) in view of Yamamuro et al. (6,334,638).

Hirano et al. does not disclose the claimed arrangement of the crush member with respect to
the vehicle frame and the bumper.

Art Unit: 3612

Yamamuro et al. teach connecting the large end of an energy absorber (26) to a bumper and the smaller end to a mounting plate (26) that is welded to vehicle frame (17).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to attach the larger end of the crush member of Hirano et al. to the bumper, as taught by Yamamuro et al., and to weld the mounting plate to the vehicle frame, as taught by Yamamuro et al., to allow the crush member/mounting plate to be mounted on a smaller sized frame vehicle while retaining the same energy absorption characteristics.

11. Claims 76 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano et al. (4,272,114) in view of Yamamuro et al. (6,334,638), as applied to claim 45.

Hirano et al., as modified, does not disclose adjusting the angle of the sidewalls to vary the absorption characteristics of the impact system.

Official notice is being taken that tuning the energy absorption characteristics by adjusting the physical dimensions (size, thickness, angles) of the energy absorber is well known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to:

in reference to claim 36, adjust the angle of the sidewalls of Hirano et al., as modified; and

in reference to claim 37, adjust the thickness of the top wall, bottom wall, and sidewalls of Hirano et al., as modified;

to provide the desired energy absorption characteristics.

Allowable Subject Matter

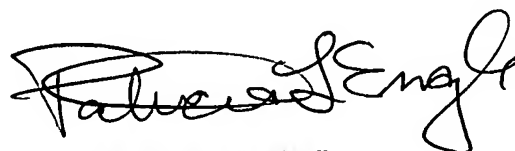
12. Claims 2-29, 40-43, 46-73, 79, 81, and 82 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Blankenship whose telephone number is 571-272-6656.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Dayoan can be reached on 571-272-6659. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gab
September 16, 2005



**PATRICIA L. ENGLE
PRIMARY EXAMINER**

Art Unit 3612